4

POPULATION, HEALTH, AND NUTRITION

I. INTRODUCTION

Poor health and nutrition—particularly as it affects mothers and children—and rapid population growth cause human suffering and impede development. The Agency places heavy emphasis on addressing the cause of these problems partly because a major American goal is to relieve suffering wherever it occurs, but also because USAID realizes that population pressures and general low health status of peoples can affect ecological, economic, political, and social stability. Stabilizing population growth can contribute to global economic growth, reduce environmental degradation, and promote political stability. Protecting health can save lives, improve the quality of life, prevent humanitarian crises, and improve economic productivity. Giving families the ability to choose the number and spacing of their children makes tremendous contributions to maternal and child survival and empowers women and their families. Decreasing the incidence of HIV/AIDS and other infectious diseases will protect hard-won gains in development, as well as reduce the threat of epidemics that can directly affect all citizens of the world. These programs serve U.S. national interests by protecting regional stability and promoting global economic growth that is environmentally sustainable. They reduce the risk of emergencies, particularly the conflicts that arise partly as a result of rapidly growing populations.

Population, health, and nutrition (PHN) have been major components of USAID activities since the Agency was established. This is evident in funding trends and in current funding priorities. In 1997 USAID provided 756.1 million dollars in Development Assistance funds to these priorities, 46 percent of all Development Assistance dollars.

USAID is the leader and largest bilateral donor in family planning and child survival. As such, the Agency can claim significant credit for impressive achievements in improving health conditions in developing countries and in stabilizing world population. While population *growth* still places the world at risk, growth *rates* have plunged in the past two decades. Had they continued unabated at 1975 levels, there would be 174 million more people in developing countries today. Reductions in infant mortality during the period translate into almost 48 million infants' lives saved. On average, infant mortality in developing countries declined from 113 to about 64 per 1,000 live births.[2, 3]

In addition to efforts in family planning and child survival, USAID has taken on the challenges of reducing maternal mortality, reducing the impact of the HIV/AIDS pandemic, and reducing the threat of infectious diseases that pose serious public health risks.

In 1960, at the height of the population explosion, world population was 3 billion. In 1987, it reached 5 billion. It will pass 6 billion in 1999 and will continue to grow until at least the middle of the next century.[1]

Other chapters have shown how countries are "graduating" from being recipients of foreign assistance. In this sector, as in all others, USAID recognizes that providing assistance that requires a continual transfusion of funds and expertise is not in the best interest of either USAID or recipient countries. As a result, one of the most important aspects of USAID's work in PHN is building stronger health care systems, both public and private, whose improvements can be sustained after donors depart. It does little good to provide health services if these can only be sustained by outside donors. Because of the importance of this topic, it will be discussed in the theme section of this chapter.

For more than 30 years, USAID has been responsible for many significant program innovations in population, health, and nutrition. Implementation of USAID programs is done by the field Missions and regional bureaus, but they are supported in this by the Agency's Population, Health, and Nutrition Center, which is a leader in technical support and research and evaluation. The Center provides pivotal support to bureaus, Missions, and stakeholders outside the Agency—host governments, nongovernmental organizations, bilateral and multilateral development organizations, university and research institutes, and the private sector. The Center's technical support to the field has been the critical link through which research advances and program innovations have had an impact at the country level.[4] The center also 1) provides a centralized system for contraceptive procurement and supports ministries of health in the logistics of contraceptive management; 2) funds biomedical research to increase understanding of contraceptive methods and to develop new fertility regulation technologies; 3) manages operations and demographic research to improve the delivery and quality of family planning and reproductive health services; and 4) it develops methods to measure the impact of these efforts.

Strategic Framework for Stabilizing World Population and Protecting Human Health

Family planning remains an important part of USAID's population and health portfolio. The Agency concentrates on increasing the availability and quality of services by strengthening programs run by government, local voluntary organizations, for-profit organizations, and commercial distribution channels. The Agency promotes policy dialog to create a supportive political and regulatory environment for family planning. It conducts interpersonal and mass communication programs to inform and motivate behavioral change. To increase access, USAID supports commercial marketing and community distribution of contraceptives. Finally, it develops innovative training methodologies to strengthen the managerial and technical skills of family planning and health personnel. USAID does not advocate or support abortion in any of its programs.

In **child health,** the Agency supports such cost-effective programs as breastfeeding, control and treatment of diarrheal diseases, control of pneumonia and meningitis, food supplementation, health education, immunization against childhood diseases, and water and sanitation. One of the more recent initiatives, carried out with the World Health Organization and other donors in conjunction with host governments, is an

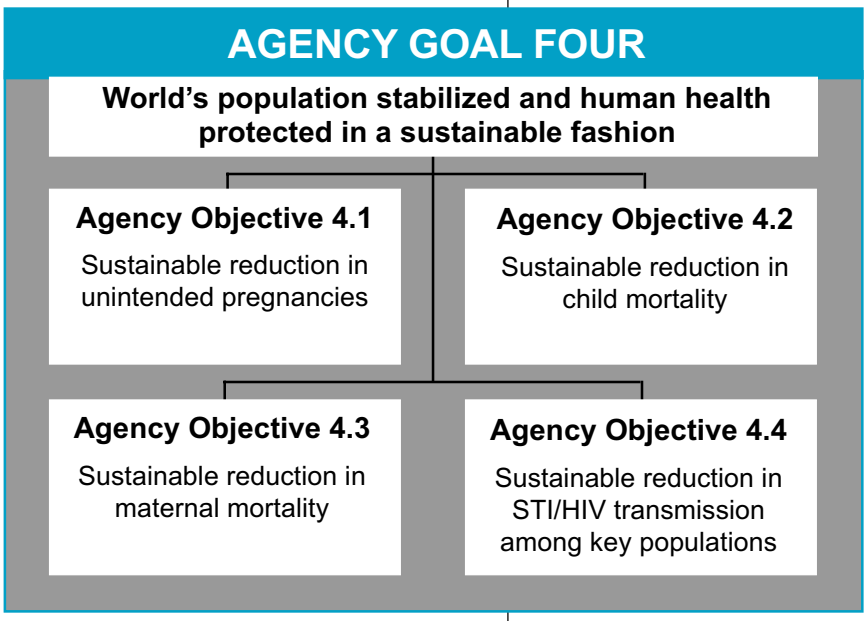
effort to integrate preventive and curative health care in the framework of the "Integrated Management of Childhood Illness," in the belief that providing integrated services will be both more effective and more sustainable. Clearly, a major job for the next several years is to prove whether this initiative will actually result in better health.

Worldwide, nearly seven million children under 5 die each year because they are undernourished. An additional 180 million children are disabled by not having enough to eat.[5] In response, USAID has a large food assistance program, integrating food assistance with child survival efforts in many countries to decrease malnutrition and increase household food security. USAID carries out this program in partnership with private voluntary organizations (PVOs), and the World Food Program.[6, 7] USAID's Office of Private and Voluntary Cooperation gave child survival grants to PVOs that helped 18.7 million women and children during FY97.

Some 600,000 women die each year from complications of pregnancy and childbirth.[8] When a mother dies, the risk of death for her children under 5 increases markedly. Agency programs in **maternal health,** therefore, serve a dual purpose, promoting the health of both women and children. Programs concentrate on family planning and reproductive health, good nutrition for girls and women, prenatal care—including birth preparedness, and diagnosis and treatment of complications of deliveries and ensuring that as many deliveries as possible are safe. In all cases, making maternal health services accessible and high quality reduces the morbidity and mortality associated with pregnancy.

The **HIV/AIDS** pandemic is an increasingly serious threat to health and economic and social development. In 1997 alone, there were some 5.8 million new HIV infections in adults and children.[9] Prevention is the key defense against HIV/AIDS. USAID is the largest single donor in HIV/AIDS prevention. The Agency works to prevent HIV infections through behavioral change education, condom marketing programs, and control of sexually transmitted infections. It also supports behavioral change research, development of surveillance systems to measure disease prevalence, local capacity-building, monitoring and evaluation, policy reform, and women's status and empowerment programs.

Other **infectious diseases** persist in the developing world, predominantly affecting infants and children. Basic child health services, such as vaccination, treatment of acute respiratory infections, malaria prevention and treatment, and control of diarrheal diseases with oral rehydration therapy all help



to reduce morbidity and mortality. In recent years, adult health has been threatened by infectious diseases such as malaria and tuberculosis. Treatment of these diseases is becoming more difficult because the bacteria that cause them are becoming increasingly resistant to drugs. In 1997, USAID launched an initiative to address four areas: malaria, tuberculosis, containment of antimicrobial resistance, and improvement of surveillance systems.

Distribution of USAID Programming

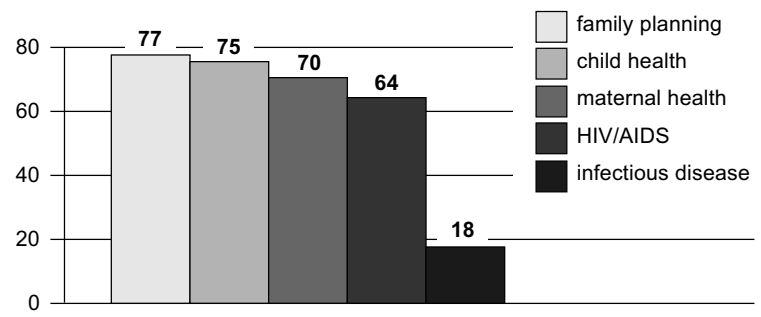
Of the 95 USAID country, regional, and headquarters offices, 58 had a total of 87 population, health, and nutrition objectives in 1997. Most had compound objectives, integrating family planning, child health and nutrition, and maternal health into single objectives. The aim of this approach is to increase effectiveness and efficiency by integrating health services that work together to produce the greatest improvements in health and increase the number of people served. When mothers bring their children to the clinic to be immunized, for example, they can receive their prenatal iron supplements or contraceptive supplies. Integration includes collaboration across government and private sectors in providing services.

USAID continues to support population, health, and nutrition activities in countries where there is no local Mission. Private voluntary organizations that are primary partners with the Bureau for Humanitarian Response's Food for Peace Program implement these programs.

In 1997 the **Africa** and the **Latin America and Caribbean** Bureaus had the most comprehensive PHN portfolios. In Africa, 20 strategic objectives addressed family planning, 19 supported child health, 12 covered maternal health, and 19 addressed HIV/AIDS control. In Latin America and the Caribbean the pattern was similar. Fourteen strategic objectives addressed family planning, 12 covered child health, 11 were dedicated to maternal health, and 10 supported HIV/AIDS interventions. In the **Asia and Near East** region, family planning, child health and maternal health had nine strategic objectives each supporting them. Seven strategic objectives support HIV/AIDS interventions.

High fertility has not been an issue in most of **eastern Europe and the new independent states.** In 1997 there were two strategic objectives concerned with child health and two with maternal health. This region concentrated more heavily on strengthening health systems, with seven strategic objectives in this area. In addition, six operating units had a special initiative to control infectious diseases.[10]

Figure 4.1
Percentage of Operating Units with PHN SOs, FY97
by Agency Objective



Overview

This chapter presents and analyzes progress toward USAID performance goals for each region and presents examples of operating unit success in meeting expectations. Section III, Highlights, illustrates what USAID did and what it achieved in the population, health, and nutrition goal in 1997.

USAID's work in strengthening health systems underpins its achievements in maternal and child health and nutrition, population, HIV/AIDS and infectious diseases. System-building activities that help enhance program effectiveness and accelerate program implementation lay the foundation for program and institutional sustainability. This area will be explored in section IV.

II. AGENCY PROGRESS

Country Development Trends

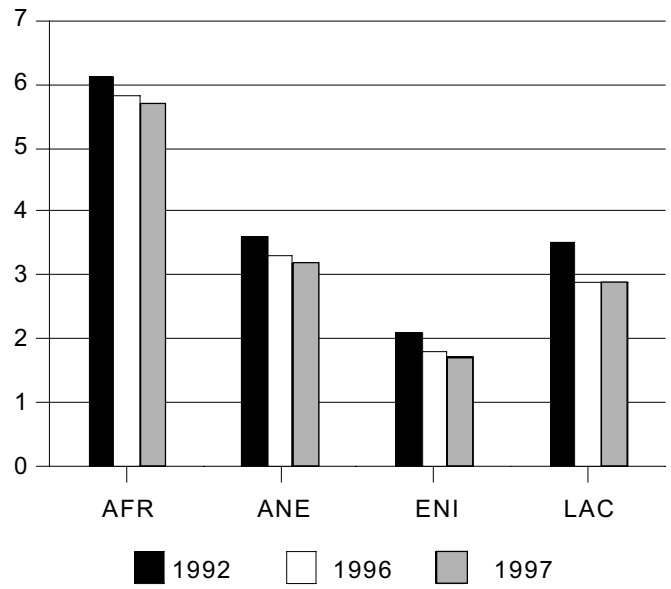
USAID established performance goals for each major area of population, health, and nutrition in its strategic plan. By the year 2007, USAID, working with other partners, expects to achieve the following:

- A 20 percent reduction in total fertility rates
- A 25 percent reduction in average mortality rates for infants and children under 5
- A reduction in the proportion of underweight children under 3
- A 10 percent reduction in the maternal mortality ratio
- A slowing of the rate of new HIV infections
- A reduction in deaths caused by infectious diseases (excluding HIV/AIDS).

Total Fertility Rate Reduced by 20 Percent

Figure 4.2 shows the progress made in achieving this goal through FY97.

Figure 4.2
Total Fertility Rates, by Region and Year



Each region of the world where USAID works presents different challenges for population programs to address. As is seen in figure 4.2, sub-Saharan **Africa's** population is growing faster than that of any other region in the world. Fertility remains high and contraceptive use remains low. Overall, the decrease in the total fertility rate is small. However, in various countries in the region, birth rates have declined steadily and offer evidence of USAID's and other donor efforts. The most impressive of these is **Kenya,** where total fertility fell from 7 children per woman in the early 1980s to 4.3 in 1997.

Asia and the Near East. This region has more than 60 percent of the world's population, so any change in fertility rates here has a tremendous impact on global trends. During 1996–97, the total fertility rate in USAID-assisted countries dropped from 3.3 to 3.2. Data from recent household surveys confirm this significant trend in fertility reduction. Bangladesh's decline has been particularly dramatic: from 4.2 in 1992 to 3.5 in 1997.[11]

Europe and the new independent states. High fertility rates are not an issue in the region, except in the Central Asian republics. The fertility rate in most countries has fallen below "replacement fertility," or 2.1 children per woman. USAID's programs are directed toward introduction and use of modern contraceptive methods. In these places, access to quality family planning and reproductive health services has led to a significant drop in the number of abortions performed.

Latin America and the Caribbean. Fertility rates vary. Some countries have a fairly low and steadily decreasing fertility rate, such as Brazil and Jamaica where the total fertility rate is 2.4. Other countries are lowering rates but still face challenges. Among these are Bolivia, where the 1992 fertility rate of 4.8 fell to 4.2 in 1997; Ecuador, from 3.8 to 2.9; and Haiti, from 5.4 to 4.8.[12]

Under-5 Mortality Rate Decreased by 25 Percent

USAID's goal of reducing under-5 mortality rates by 25 percent by 2007 contributes to achieving goals articulated at the World Summit for Children in 1990. USAID and other donors have done significant work in child survival programming and, as evidenced by figure 4.3, have made progress in meeting this goal.

As was true with population, each continent poses different problems to be addressed in improving child health. Rates of under-5 mortality are at a high level throughout **Africa,** with reductions continuing at a slow rate. The major causes of under-5 mortality are measles, malaria, acute respiratory infections, malnutrition, and diarrheal diseases. HIV/AIDS is becoming a significant cause of infant and child mortality. In some countries, HIV transmission from mother to child has slowed the trend of decreasing child mortality. Still, mass immunizations and malaria control programs have lowered child and infant mortality.

Asia and the Near East. This region has seen significant reductions in the past seven years, but rates are still high in some populous countries. USAID has seen good progress in countries where under-5 mortality is high and the Agency has substantial programs. India moved from 115.9 per 1,000 live births in 1992 to 94.3 in 1997, Indonesia from

102.2 to 85.1, Nepal from 131.8 to 113.4, and Morocco from 85.1 to 70.5. For comparison, most developed countries have rates around 5 per 1,000 births. The primary killers of children in the region are malnutrition, diarrheal disease, acute respiratory infections, and vaccine-preventable diseases such as measles. The ANE region has the highest prevalence of child undernutrition and vitamin A deficiency.[13]

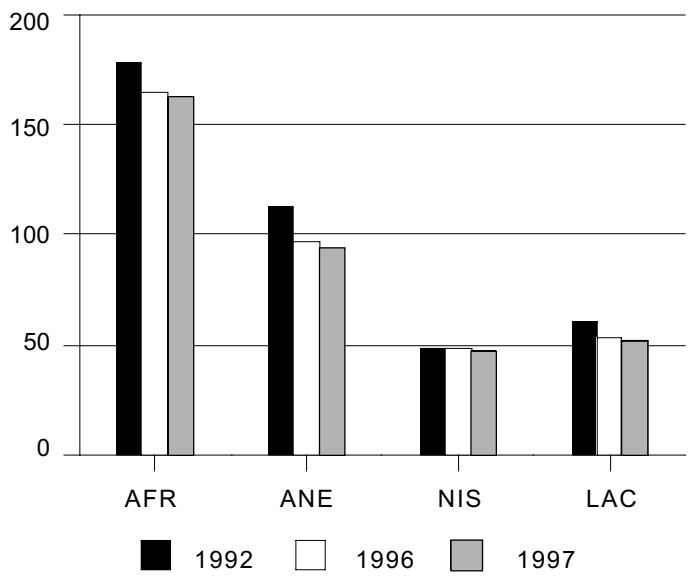
Europe and the new independent states. Although the overall under-5 mortality in the region has been relatively low, there are large regional variations. Mortality rates are relatively high in Turkmenistan (91.0) and Tajikistan (128.7), relatively moderate in Georgia (56.9) and Ukraine (26.0), and very low in Slovenia (6.4).[14] The main problems are related to breakdowns in the health care system, resulting in poor access to and availability of appropriate basic health care services.[15]

Latin America and the Caribbean. From 1996 to 1997 countries with USAID child survival programs showed an average of 4 percent declines in infant mortality rates, except for Haiti and Honduras, where the mortality rate dropped less than 1 percent. In several countries where USAID has had programs in child survival, there were large declines from 1992 through 1997. In Bolivia mortality dropped from 149.7 to 125.5, in Ecuador from 55.7 to 44.2, in Nicaragua from 71.9 to 57.6, and in Peru from 73.0 to 57.8. USAID is taking action to reduce Haiti's continued high under-5 mortality of 158.[16]

- **Other Performance Goals**

While data on total fertility rates and mortality rates for children under 5 are generally available for USAID-assisted countries, collecting reliable data to measure progress toward USAID's other PHN goals—*a 10 percent reduction in the maternal mortality ratio, a reduction in the proportion of underweight children under 3, slowing of the rate of new HIV infections, and a reduction in deaths due to infectious diseases (excluding HIV/AIDS)*—is challenging. The Agency has found it difficult to construct indicators that are both reliable and available from all countries for the same time period. See table 4C in annex C for available data measuring these indicators. USAID is identifying proxies and other alternatives for measuring these performance goals, while discussions with other donors are under way to develop an international approach to improving data availability, comparability, and quality.

Figure 4.3
Under-5 Mortality Rates, by Region and Year



Monitoring USAID Program Performance in Population, Health, and Nutrition

USAID closely monitors its program performance. Each operating unit develops a strategic plan with several broad strategic objectives. Country programs' intermediate results link the programs and the strategic objectives. USAID monitors performance at both levels.

- **Data for Performance Monitoring**

Each USAID country program identifies performance indicators to measure progress toward each strategic objective and intermediate result. To measure performance, an indicator must have two elements: an annual performance goal (derived from baseline data) and actual data on performance during the year under review.

In 1997, 62 percent of PHN strategic objectives for operating units had both goals and actual data to measure performance relative to indicators. This is a significant improvement from 40 percent in 1996. The Agency also monitors performance reporting at the intermediate results level annually. Of the 257 intermediate results, 71 percent were supported by FY97 performance data.

- **1997 Performance: Bureaus' Technical Performance Assessments**

USAID also monitors the percentage of indicators for which annual goals are met or exceeded for each strategic objective. Of those PHN strategic objectives that reported full indicator data for 1997, goals were met or exceeded in 88 percent of the cases. They were not met in 12 percent of cases.

The indicator data tell only part of the performance story. To assess USAID's program performance, the regional bureaus in Washington complete a detailed annual technical review of each strategic objective, including its intermediate results. This review combines analysis of performance indicator data, qualitative evidence of progress, and performance trends and prospects.

Of 73 strategic objectives in support of the population, health, and nutrition goal, technical reviews by the regional bureaus judged that 32 percent exceeded performance expectations, 61 percent met expectations, and 7 percent fell short of expectations in 1997.[17]

- **Reasons for Performance Problems**

Programs often fell short of expectations because of political or other turmoil. For example, in **Albania,** performance suffered because of violence that broke out after a failed pyramid scheme and subsequent presidential elections. In **Nigeria,** all FY97 funds were withheld owing to Nigeria's being decertified for noncompliance with the war on drugs. This was further exacerbated by the closure of the USAID regional office in Abidjan, which had provided technical support to the program. In some situations, there were problems with the implementing partner. In **Colombia,** for example, the nongovernmental organization responsible for many activities under the PHN strategic objective experienced organizational problems and failed to coordinate activities and funds effectively.

III. HIGHLIGHTS

USAID-supported interventions achieved significant results in each of the five goal areas.

Reduction of Unintended and Mistimed Pregnancies

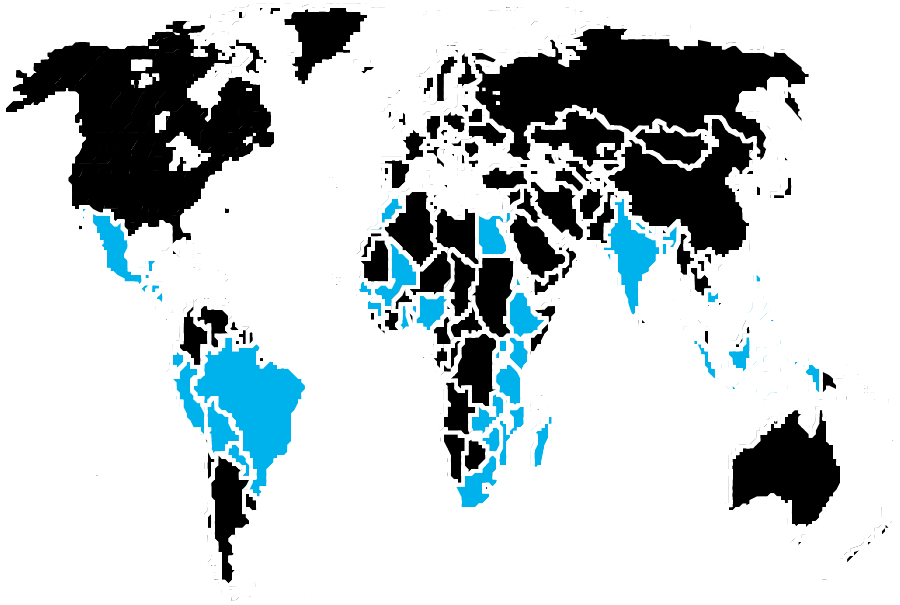
During 1997 the modern contraceptive prevalence rate for married women rose from 32.9 percent to 34.4 percent in 44 USAID-assisted countries. To improve access and quality, USAID expanded the number of family planning programs from 22 to 28 countries. It established national information, education, and communication task forces in more than 20 countries to increase advocacy for and public awareness of population and reproductive health issues. Through new public–private partnerships, the Agency leveraged $2 million in private sector resources for family planning communication programs.[18]

- **Africa**

As already noted, increasing contraceptive use in **Kenya** has already begun to show an impact on total fertility rate. Modern contraceptive prevalence increased from 7.7 percent in 1984 to 31 percent in 1997 in Kenya, and the total fertility rate has fallen from 7 to 4.3 children per woman.[19] The program has made a great effort to increase public access to family planning and has used commercial methods to market contraceptives. With USAID assistance, the Kenya program took the lead in

MAP 4.1

Objective 4.1: Reduction in Unintended and Mistimed Pregnancies



Country Programs

Bangladesh
Benin
Bolivia
Brazil
Cambodia
Dominican Rep.
Ecuador
Egypt
El Salvador
Eritrea
Ethiopia
Ghana
Guatemala
Guinea
Guyana
Haiti
Honduras
India
Indonesia
Jamaica
Jordan
Kenya
Madagascar
Malawi
Mali
Mexico
Morocco
Mozambique
Nepal
Nicaragua
Nigeria
Paraguay
Peru
Philippines
Senegal
South Africa
Tanzania
Uganda
Zambia
Zimbabwe

Regional Programs

REDSO/ESA
REDSO/WCA
Sahel Regional
African Sustainable Development

using user fees to increase revenue for nongovernmental organizations involved in family planning. Other countries, especially **Ghana,** are showing similar progress.

- **Asia and the Near East**

Egypt's modern contraceptive prevalence rate rose from 45.5 percent in 1995 to 51.8 percent in 1997. The USAID-supported national family planning program and nongovernmental organizations played a part, as did USAID's new high-profile private sector initiative to increase the private sector share of family planning services. In addition, the Ministry of Health and Population consolidated public services, placed a new policy emphasis on meeting the basic health needs of Egyptian women, and launched the aggressive Gold Star quality improvement program.[20]

Indonesia's modern contraceptive prevalence rate continued to climb, largely because the government and USAID continued their long-term commitment to family planning. More than 61 percent of married women (35 million) used modern methods in 1997, up from 59.5 percent in 1996. USAID-funded efforts contributed substantially to this progress by helping six NGOs develop at least 117 clinics and by supporting provider training and communication interventions in major provinces.[21]

- **Latin America and the Caribbean**

In **Bolivia** in 1997, 40,000 new users of reproductive health services were registered in private health network programs that received funding and technical support from USAID. This was a 110 percent increase over 1996. The USAID-funded social marketing program doubled contraceptive sales over 1996 levels: condom sales increased from 2.5 to 5 million and oral contraceptive sales increased from 350,000 to 600,000 cycles. USAID assistance in expanding commodity access and increasing advertisements of contraceptives contributed to these improvements.[22]

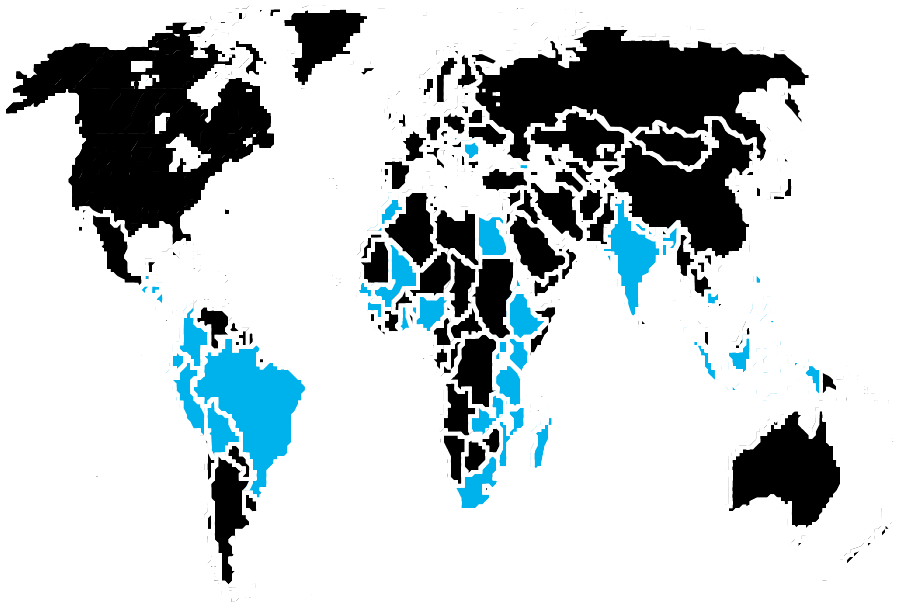
In **Peru,** 10 percent more couples used family planning than the USAID Mission had anticipated for 1997. That year marked the close of the Private Voluntary Family Planning project, in which USAID supported NGOs that provided family planning and reproductive health services for more than 200,000 users. Part of the project's success came from the use of a methodology called *autodiagnóstico,* whereby women identify and prioritize their own health problems. Reproductive tract infections, difficulties in childbirth, and too many children topped the list. This realization may have contributed to the increased use of family planning.

Improving Health and Nutrition and Reducing Mortality for Infants and Children

The percentage of children fully immunized by age 1 rose from 43 percent in 1996 to 49 percent in 1997 in 28 USAID-assisted countries. In 1997, WHO, USAID, and others launched a major new primary health care initiative, Integrated Management of Childhood Illness in 41 countries and supported research to develop more effective vaccines for acute respiratory illness and malaria. Working with

MAP 4.2

Objective 4.2: Improvement in Child Health and Nutrition



Country Programs

Albania
Bangladesh
Benin
Bolivia
Brazil
Cambodia
Colombia
Ecuador
Egypt
El Salvador
Eritrea
Ethiopia
Georgia
Ghana
Guatemala
Guinea
Haiti
Honduras
India
Kenya
Madagascar
Malawi
Mali
Morocco
Mozambique
Nepal
Nicaragua
Nigeria
Peru
Philippines
Romania
Senegal
Slovakia
South Africa
Sri Lanka
Tanzania
Uganda
Zambia
Zimbabwe

Regional Programs

REDSO/ESA
REDSO/WCA
African Sustainable Development

LAC Regional

Rotary International, USAID contributed to polio eradication efforts. The Agency also launched a vitamin A initiative to reach high-risk populations in priority countries.

- **Africa**

Before the recent conflict between **Eritrea** and **Ethiopia,** USAID supported interventions targeted to child survival. In the Eritrea Health and Population project, effective management and implementation of program activities increased vaccination coverage. The percentage of fully immunized children aged 12 to 23 months increased from 10 percent in 1996 to 35 percent in 1997. Ethiopia recorded even higher vaccination coverage. Immunization coverage of diphtheria, pertussis, and tetanus in target areas went from 60 percent in 1996 to 80 percent in 1997. Measles immunization coverage increased from 46 percent in 1996 to 61 percent in 1997. On polio immunization day, 83 percent of children were vaccinated in the first round.[23]

USAID's assistance to village drug-revolving funds has made a difference in malaria treatment in **Malawi.** Sulphadoxine-pyrimethamine, a first-line antimalarial drug, was available in only 20 percent of rural private outlets in 1995; by 1997, 70 percent of the outlets had it. As local manufacture of the drug increased, the price fell from $2 per treatment dose in 1995 to $0.10 in 1997. Through USAID support, 64 drug-revolving funds were set up by U.S. PVOs to supply sulphadoxine-pyrimethamine for malaria and oral rehydration salts for diarrhea. The program, managed by female volunteers, sold medications on a cost-recovery

basis to villagers. The health surveillance assistance section of the Ministry of Health and participating nongovernmental organizations supervised.[24]

- **Asia and the Near East**

India has the single largest development activity under USAID's Title II, Food for Peace. The government's Integrated Child Development Services program delivers health, nutrition, and preschool services to more than half of India's mothers and children. One U.S. PVO provides services to 6.6 million people a year. During FY97, the proportion of infants breast-fed within 8 hours after birth increased in the project area from 30 percent to 60 percent. The percentage of children under 2 completely immunized increased to 55 percent, compared with a baseline of 30 percent. Use of modern contraception to space births in the project areas increased to 20 percent, compared with 6 percent at baseline.[25]

A child survival grant from USAID's Office of Private and Voluntary Cooperation helped increase vaccination coverage in Maluku Province in **Indonesia.** Rather than training low-performing nurses in formal classrooms, the group had experienced nurses serve as peer trainers. The 1997 evaluation found nurses who received peer training increased the number of vaccines they gave by 40 percent. The cost of this approach is significantly lower than classroom training.[26]

- **Europe and the New Independent States**

Under a partnership between Providence Hospital in Rhode Island and the Kosice Teaching Hospital in Slovakia, USAID provided support for training and equipment for the **Slovakia** hospital's neonatal intensive-care unit. Early identification of high-risk mothers and infants lowered neonatal mortality from 11.0 per 1,000 newborns in 1995 to 6.2 per 1,000 in 1997.[27]

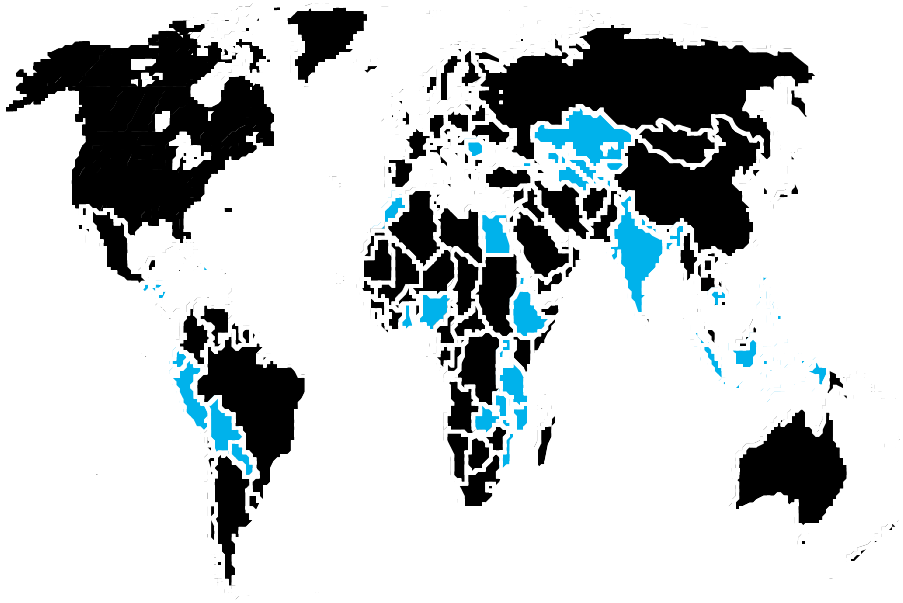
In **Kazakstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan,** and **Uzbekistan,** USAID provided assistance to assess vaccine stock and review immunization policies and program operations. Activities included training in how to manage and maintain the vaccine cold chain. Teaching providers that immunizations can be given together and that they can be given despite minor illnesses resulted in an increase in vaccination coverage and a reduction in diphtheria cases from 1996 to 1997 (from 772 cases to 140 in Kazakstan, and from 440 to 27 cases in Uzbekistan). In addition, 1997 vaccine budgets for these countries were reduced. Under the new system, for example, Moldova saved 33.5 percent of its national immunization budget.[28]

- **Latin America and the Caribbean**

Honduras has had remarkable results in improving child health. As of 1997, it had the best record in Central America for children vaccinated against diphtheria, polio, tuberculosis, and measles —at or above 95 percent since 1993. USAID completed its 17-year rural water and sanitation construction program. Under that program, the Agency built more than 1,440 water and sanitation systems in rural areas, providing more than 858,600 people with safe drinking water. Health improvements were dramatic: diarrheal diseases dropped from the leading to the third cause of death among infants. This

MAP 4.3

Objective 4.3: Reductions in Deaths during Pregnancy and Childbirth



Country Programs

Albania
Bangladesh
Bolivia
Cambodia
Dominican Rep.
Ecuador
Egypt
El Salvador
Eritrea
Ethiopia
Georgia
Ghana
Guatemala
Haiti
Honduras
India
Indonesia
Kazakhstan
Kyrgyzstan
Malawi
Morocco
Mozambique
Nepal
Nicaragua
Nigeria
Paraguay
Peru
Philippines
Romania
Tajikistan
Tanzania
Turkmenistan
Uganda
Uzbekistan
Zambia

Regional Programs

REDSO/ESA
REDSO/WCA
African Sustainable Development

LAC Regional

suggests that USAID successes in child survival are being sustained over the long term. Setbacks are likely, however, as a result of Hurricane Mitch.[29]

Reduction of Death and Adverse Health Outcomes to Women as a Result of Pregnancy and Childbirth

USAID is currently reviewing the indicators used for this objective, because it is difficult to find reliable data measuring the outcomes of pregnancy. While maternal mortality data are reported, in the developing world these are rarely based on either vital statistics systems or on reliable surveys. At this point, the best indicator appears to be the percentage of women who are attended by medically trained health professionals during delivery.

- **Africa**

With USAID assistance, the Family Planning Unit of the Ministry of Health in **Tanzania** developed an accelerated training strategy to increase the number of dispensaries in the Lake Zone with at least one provider trained in reproductive health clinical skills. In 1997, 435 maternal child health nurses were trained, compared with 300 in 1996. The training curriculum covered exclusive breast-feeding and maternal and childhood nutrition, as well as adolescent reproductive health.[30]

In the Mupanza Zonal Center in **Zambia,** a USAID quality assurance team analyzed the causes of low antenatal clinic visits, where only 17 percent of women delivering had been seen during pregnancy. Three fourths of the women cited lack of privacy as a major reason for not going in for a visit. When

privacy screens were installed, attendance increased 40 percent. Following that success, other centers instituted similar privacy improvements.[31]

- **Asia and the Near East**

Morocco has achieved unprecedented advances in reducing maternal mortality. In three years (1995–97), maternal mortality fell from 332 to 228 per 100,000 births. A major contributor was a two-pronged government strategy: a sophisticated public education and advocacy campaign coupled with the introduction of improved essential obstetric care in hospitals in two regions. USAID developed and field-tested the improved care in 1996. It was later included as part of the UN Fund for Population Activities and European Union programs to cover other regions of Morocco, increasing its impact.[32]

A USAID-sponsored field study found that vitamin A supplements to pregnant women reduced maternal mortality by nearly 40 percent.

Micronutrient initiatives continued to make remarkable improvements in maternal health. In **Nepal,** a USAID-sponsored field study (1992–97) found that vitamin A supplements to pregnant women reduced maternal mortality by nearly 40 percent. USAID is committed to expanding vitamin A supplementation and is coordinating with partners to explore how best to do this.[33]

- **Europe and the New Independent States**

In **Russia,** USAID has sponsored model family planning centers that provide services to the community and serve as training sites. In six pilot sites, the number of abortions dropped significantly during the first three quarters of 1997 in comparison with the first three quarters of 1996. The largest decrease was 36 percent in Vladivostok, followed by 22 percent in Inanovo City, and 14 percent in Leningradski.[34]

A USAID-supported facilities survey found that women's health services improved in **Romania** in 1997. The Agency established the "family doctor model," in which general practitioners receive training and are given increased responsibilities in family planning and counseling. USAID also provided technical assistance to the Ministry of Health on including reproductive health in the insurance benefits package as well as help defining which plan participants are eligible to receive such services.[35]

- **Latin America and the Caribbean**

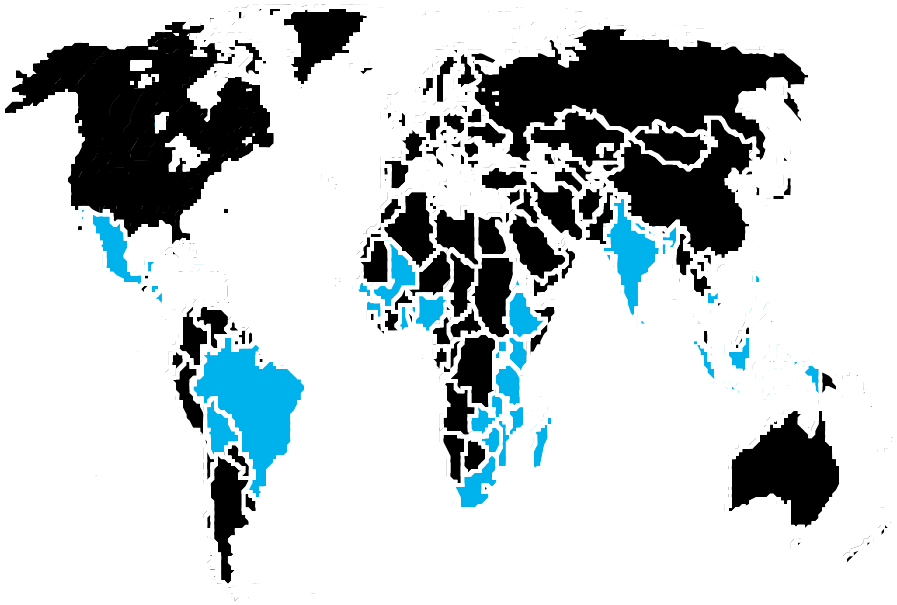
USAID and the Ministry of Health of **Guatemala** established a new community health model, the *Sistema Integral de Atención en Salud*. It provides a basic package of maternal and child health and other services primarily through NGOs. Preliminary data for 1997 showed that USAID support in four regions led to an 18 percent increase in access to basic services.[36]

HIV Transmission and the Impact of the HIV/AIDS Pandemic Reduced

USAID has emerged as the global leader in addressing the HIV pandemic by developing global standards of practice for prevention of HIV transmission. In 1997 USAID began the implementation of its new HIV/AIDS strategy, designed in response to the growing

MAP 4.4

Objective 4.4: Reduction in Transmission and Impact of HIV/AIDS



Country Programs

Bangladesh
Benin
Bolivia
Brazil
Cambodia
Dominican Rep.
Eritrea
Ethiopia
Ghana
Guinea
Haiti
Honduras
India
Indonesia
Jamaica
Kenya
Madagascar
Malawi
Mali
Mexico
Mozambique
Nepal
Nicaragua
Nigeria
Philippines
Senegal
South Africa
Sri Lanka
Tanzania
Uganda
Zambia
Zimbabwe

Regional Programs

REDSO/ESA
REDSO/WCA
African Sustainable Development

LAC Regional
G/CAP

worldwide epidemic. This new strategy is based on the need for continued and expanded efforts to prevent HIV transmission, and a new emphasis on mitigating the diseases's impact on people and their communities.

USAID is a founding member and major contributor to the International HIV/AIDS Alliance, which has established NGO support programs in eight countries. This program has proven effective in transferring donor resources to local-level organizations and in expanding HIV/AIDS prevention programs through established NGO networks. Many of the 500 organizations that have received alliance support to date were already providing other, non-HIV/AIDS-related services to their communities.

In the last year, USAID has collaborated with UNAIDS, the United Nations AIDS program, to develop new, improved "Guidelines for Sentinel Surveillance Systems." These guidelines are currently under review and are scheduled for publication and worldwide distribution by UNAIDS in 1999.

- **Africa**

USAID has undertaken policy development and field studies on HIV/AIDS in **Kenya.** In 1997, the Kenyan government articulated its first national policy to combat the epidemic during the next 15 years. This was a major step toward rational allocation of resources for HIV/AIDS prevention and treatment. USAID met significant policy targets by establishing two HIV/AIDS networks, one for NGOs and one for churches. Both groups concentrate on

policy and advocacy for AIDS prevention and care at the national and local levels. To ensure that policymakers understand the epidemic's evolution and implications, USAID continues to assist the National AIDS/Sexually Transmitted Disease Control Program in interpreting, disseminating, and evaluating sentinel surveillance and behavioral data.[37]

In July 1997, a USAID-supported contractor launched a female condom in **Zimbabwe,** under the brand name "Care." This was the culmination of an aggressive national campaign waged by Zimbabwean women to pressure the government to approve the female condom. Because of the disproportionate number of women with HIV/AIDS, more than 20,000 people signed a petition demanding its approval. In the first four weeks, 46,000 female condoms were sold in three cities; within a year, 126,000 were sold—four times the target. As the first national female condom launch in the world, the "Care" experience has become a model for other African countries.[38]

- **Asia and the Near East**

The USAID Mission in **India** addressed its objective for HIV prevention through two complementary programs, one in the public sector and one in the private. The AIDS Prevention and Control Program dealt primarily with the private commercial sector and nongovernmental organizations. The Tamil Nadu State AIDS Control Society implemented the public sector program. The two programs brought about significant behavioral changes. Two of the three male risk groups—truck drivers and their helpers, and male factory workers—said they had fewer nonregular sexual partnerships in the past year. The percentage of truck drivers and their helpers who reported visiting at least one sex worker during the past year dropped from 38 percent to 27 percent. In addition, the proportion of men who used condoms with their nonregular sex partners increased from 37 percent to 47 percent in 1997.[39]

- **Latin America and the Caribbean**

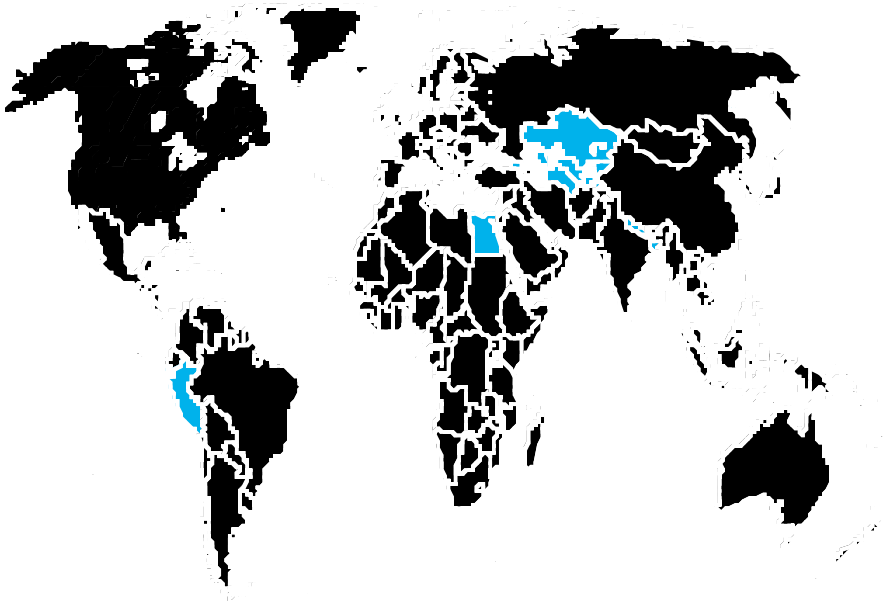
Working primarily in the **Brazilian** states of São Paulo and Rio de Janeiro, the USAID funded AIDSCAP project, which ended in 1997, applied three strategies to contain the spread of sexually transmitted HIV infections: reducing sexually transmitted infections, reducing high-risk sexual behavior through behavior change communication, and improving the quality, accessibility, and affordability of condoms. In one major center of AIDS infection, the city of Santos, whereas 416 new cases of AIDS were reported in 1994, only 249 were reported in the last year of the project. This is particularly striking since the project initiated an improved surveillance system, which would normally be expected to increase the number of cases found. With World Bank financing, Brazil's Ministry of Health is replicating this strategy in other cities.[40]

- **Europe and the New Independent States**

USAID is supporting the World Health Organization's Sexually Transmitted Diseases Task Force, which collaborates with UNAIDS, the Joint United Nations Program on HIV/AIDS, in **Romania, Russia,** and **Ukraine.** In addition, in 1997, various NGOs, the Women's Reproductive Health Program, and the Hospital Partnerships program undertook HIV/AIDS educa-

MAP 4.5

Objective 4.5: Reduction in Threat of Infectious Diseases



Country Programs

Bangladesh
Egypt
Georgia
Kazakhstan
Kyrgyzstan
Nepal
Peru
Tajikistan
Turkmenistan
Uzbekistan

Regional Programs

none

tion, community prevention and advocacy, health provider education, and improved disease management and diagnosis.[41]

In **Romania,** U.S. PVOs have trained families with HIV-positive children and expanded foster parenting, domestic adoptions, and family unification. In addition, they have provided HIV/AIDS information to adolescents and expanded community activities to improve care for abandoned HIV-positive children.

Reducing the Threat of Infectious Diseases of Major Public Health Importance

In 1997, USAID worked closely with partners to develop a new strategy to address infectious diseases that threaten public health in developing countries. A growing number of Missions responded by expanding their efforts to monitor and combat infectious diseases. Since this is a new initiative, program results are not yet available.

Despite the apparent newness of this initiative, USAID has long been concerned with the threat of infectious diseases around the world, ever since the Agency was a major funder of the successful eradication of smallpox in the 1960s. The following activities do not, strictly speaking, fall under the new infectious disease initiative. But they do illustrate USAID's long-standing concern about the burden of infectious diseases, and they describe existing programs addressing this serious problem.

- **Africa**

This region has borne the greatest burden of infectious disease mortality and

morbidity and has been eager to take full advantage of the new funds for infectious disease control. During planning for this objective in 1997, most USAID Missions concentrated on malaria and disease surveillance. They also worked on more appropriate use of antibiotics, especially in the context of antimalarial drug efficacy and treatment policy. Funds and future programming will go to applied research on community-based approaches to control infectious diseases.

Ghana is addressing malaria with USAID assistance in a new child survival strategy drafted in 1997 that integrates malaria prevention and treatment in the case management of the sick child. USAID is working in **Mozambique** with the government's National Health Institute, the World Health Organization, and UNICEF to assess the efficacy of antimalarial drugs and improved case-management procedures. The group is also working on strengthening institutional capacity for routine drug resistance studies in the health ministry and designing a multidonor initiative to improve the integrated management of childhood illness, concentrating on treatment and case management of malaria. In **Zambia,** USAID and the Embassy of Japan cofunded an expanded malaria control effort as part of a larger package including addressing vitamin A deficiency and diarrheal disease control.

- **Asia and the Near East**

USAID has contributed to polio eradication efforts in **Bangladesh** by assisting in the development of a surveillance system for polio and the related syndrome of acute flaccid paralysis. In 1997, as a result of USAID and other donor support, Bangladesh met two major surveillance criteria: investigation of acute flaccid paralysis cases within 48 hours of notification (82 percent of the cases met this criterion), and the arrival of stool specimens to the laboratory within 72 hours (89 percent of cases).[42]

USAID works in **Egypt,** through the National Schistosomiasis Control Program, and has contributed to the development of new tools and approaches, resulting in a continued drop in the prevalence of this illness. Prevalence of schistosomiasis mansoni in school children in Kafr El Sheikh, for example, was 11.5 percent, which met the planned target.[43]

- **Europe and the New Independent States**

With multidrug-resistant tuberculosis increasing in the new independent states, USAID developed a TB-control initiative. In central Asia, the initiative modernized existing TB diagnostic, treatment, and control practices in **Kazakstan** and **Kyrgyzstan.** Accomplishments included training 400 physicians and health care workers, initiating information campaigns, and providing laboratory supplies. Because of USAID's efforts, the president of Kazakstan signed a decree to implement WHO-recommended TB therapy guidelines nationwide. In addition to TB control, USAID has been a major contributor of technical assistance, immunization support, and vaccine distribution in the region, resulting in a 33 percent decline in the cost of immunizations in these countries.

IV. STRENGTHENING HEALTH SYSTEMS: ACHIEVING DEVELOPMENT IMPACT THAT LEADS TO SUSTAINABLE CHANGE

USAID's priorities in child survival, family planning, and public health have been unwavering over the years, as the Agency has sought to improve quality of life and promote economic development and growth by targeting leading population, health, and nutrition problems. In cooperation with its partners, USAID has made impressive advances and learned many lessons in the process. One lesson is that sustainable public health improvements can only be achieved through initiatives that tackle several fronts. While it is important to provide direct services and commodities to combat specific diseases or problems, such as child mortality, it is equally or more important to develop and strengthen the systems that underpin health sector programs. An essential part of the Agency's mission is building local capacity that will enable host countries to be self-reliant and continue to improve health after USAID no longer needs to provide assistance.

USAID develops and strengthens health care systems to make programs that provide direct services more effective and to ensure that the health sector can continue to respond to the needs of the people as donors reduce their assistance. During 1997 the Agency's work in this vital part of its portfolio was broad based and quite successful. Fourteen of the 58 countries with PHN programs, and three of the four regional programs, cited results from activities aimed at strengthening health systems. This section takes a look at some of the progress described in 1997 evaluations and Mission reports. It demonstrates that results from USAID's activities that can be difficult to quantify nonetheless yield some of the Agency's most significant contributions to sustainable development.

For example, evaluations of five PHN projects in the ENI region found that, in a short time, USAID programs made an impact on problems endemic to the old Soviet-style health system leading to changes at pilot sites that could have national-level impact. In other parts of the world, evaluators looking at **Turkey's** family planning program and the **Philippines'** health sector reform concluded that USAID's effort to strengthen indigenous systems enabled these countries to assume responsibility for responding to the health care needs of their people and advance their long-term goals. Another USAID effort that was highly effective established a sustainable program to address urban sanitation needs in **Jamaica. Mozambique's** strategy to restructure and strengthen its health care system is a comprehensive approach to its public health problems, timed to take advantage of a period of economic growth. Each of these will be addressed in more detail below.

What Is the Health Care System?

It is necessary to understand the nature of a health care system to understand why these systems need to be strengthened and why development agencies such as USAID should become in-

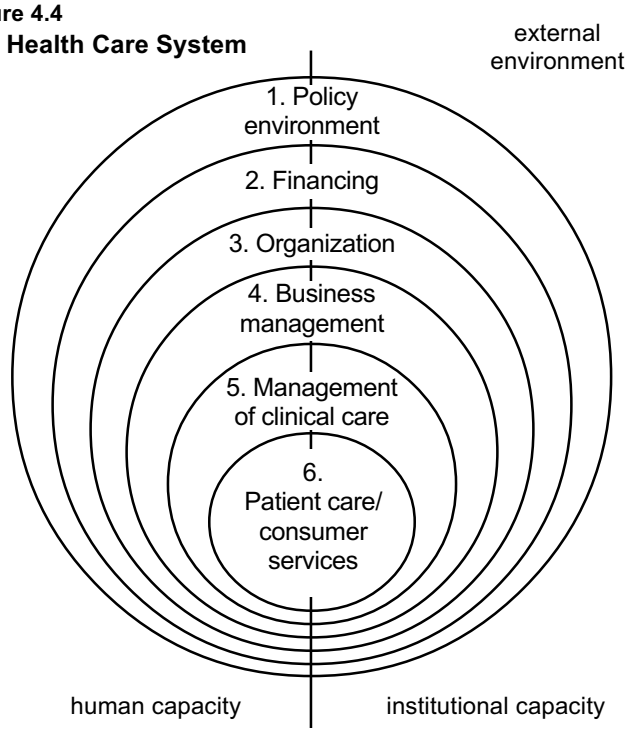
volved in this type of work. While we sometimes think of health care as a collection of separate activities—immunizations, hospitals, medicines, and so on, actually all of these different pieces are linked together. They must all function in concert if a viable, self-sustaining health care sector is to exist. Since it is sometimes hard to visualize the pieces, figure 4.4 illustrates how some of the more important aspects fit together.

The figure shows the six most basic health system components and how they relate to the consumer. The whole system is surrounded by an external environment that includes the legal, economic, political, cultural, and social situation in the country. Local stakeholders and donors often exert influence in this sphere, which includes government decisions about the budget, respective roles of central and local governments relative to that of the private sector, and the social safety net. Inside this greater environment, the first circle contains overarching health sector policies—such as whether services will be provided by the public or private sector—that affects all smaller circles. The second circle then addresses health financing—which is obviously influenced by outer circles, such as budget allocations—and which plays a crucial role in determining the type and availability of services in a country. The mix of public and private funding sources determines the amount of resources that will be available for health care and how these will be raised and channeled into the health care sector.

Organization of health care services, the third circle in, includes the number, location of services, catchment area, and distribution of inpatient and outpatient facilities as well as public and private institutions. Fourth, business management affects how services are provided. This includes budgeting, information technology, accounting, contracting, human resource management, facility maintenance and purchase and distribution of pharmaceuticals, supplies, and equipment.

With the fifth circle we find the first place that the consumer 'sees' the impact of all the above. Here is where clinical care is managed, including determining the mix of preventive and curative services, standards and quality of care, credentialing of providers, the mix of providers and support personnel, and use of formularies, medical records, and other support services. Finally, in the very center, is the heart of the system, where people in need of health care meet the providers who will give it to them.

Figure 4.4
The Health Care System



For the system to work, each level must have people who can do their jobs effectively and institutions where the work can be done. Personnel and institutional issues must be addressed. If there are no trained staff, an immaculate clinic can provide no services. If there is no vaccine, the best trained staff cannot provide immunizations.

With this brief description in mind, visualize the consumer at the moment he or she receives a health care service. For effective services to be available, all components of the system must be in place. Because the system is interconnected, each component influences how the others perform. If one is malfunctioning, the entire system is affected. For example, if financing for family planning services is not available, clinics cannot pay their professional staff. Fractured business management, such as weak distribution systems, may mean that drugs will become outdated in a warehouse before reaching sick children. If primary health care professionals are not adequately trained, more funding for outpatient facilities will have little impact on the early diagnosis and treatment of infectious diseases. Without adequate information, physicians will unintentionally prescribe readily available, yet ineffective, costly drugs. All pieces need to be in place.

The Role of Donors

Fundamentally, donors become involved because local health care systems are either nonexistent or unable to deal effectively with problems. Depending on the level of health systems in USAID-assisted countries, the donor's role ranges from acting as the substitute for the host country, filling gaps in the system, to acting as partner, coach, and collaborator in program implementation. As local capacity grows, the role changes. For example, when USAID initially targets an issue, such as child survival or family planning, existing weaknesses must be addressed by creating the basic, local capacity needed to implement the program—that is, providing a service delivery system. Where countries are more developed, donors serve as intermittent expert consultants to organizations in the country, working to improve the performance of their health sector. System strengthening assumes that a health care system already exists in some form and can be bolstered with help from the outside.

USAID Experience in System Strengthening

Over the course of the decades that USAID has been supporting improved health for people around the globe, there have been many different approaches. One of the most common has been to address a single health problem, such as smallpox in the '60s, diarrhea and dehydration in the '80s, or HIV/AIDS in the '90s. This type of program is called either "categorical," because it addresses specific categories of ill health, or "vertical," because it attempts to build a single program in a country that meets all the needs of a particular health campaign. This kind of program is the easiest to understand because one can speak of programs providing immunizations or addressing the problem of diarrhea, and not get into the complex detail of the whole health system. Alternatively, one can attempt to strengthen a broad array of the problems in a health care system, trying to

make all the pieces fit together. This approach can be considered to be "horizontal," "comprehensive," or "cross-cutting." The specific setting determines which of these approaches should be used in any particular country.

Examples of Global and Regional Health System Strengthening Activities

CEE Promotion of Health Markets Project
Data for Decision Making Project
Family Planning Management Development Project
Health and Human Resources in Africa
Health Financing and Sustainability Project (HFS I and II)
LAC Health Priorities Project
Latin American Health and Nutrition Sustainability
Manufacturing Technology Transfer Assistance (MTTA)
MEASURE Project
NIS Health Care Financing and Service Delivery Reform Project (*Zdrav*Reform)
Partners for Health reform
POLICY Project
PROFIT project
Quality Assurance Project
Rational Pharmaceutical Management Project
REDSO/East and South Africa Health Networking

Health system strengthening has been a subsidiary focus of other global and regional activities including

BASICS Project (Basic Support for Institutionalizing Child Survival)
Centers for Disease Control and Prevention
Environmental Health Project
EQUITY Project (Bridging primary health care training component)
FOCUS on Young Adults
Health and Human Resource Analysis for Africa
Health Tech
Hospital Partnerships Project
POPTECH Project

- **Two Approaches**

USAID has pursued both of these two strategies to strengthen health systems. The first uses a program directed at a single issue, such as family planning, or a leading cause of death or disability as the entry point from which systems-strengthening takes place. Examples of some of these were given in the previous section. To create a durable family planning program, systems are built around it to support service delivery. These might include introducing procedures for conducting competitive procurement of commodities and managing logistics. Other initiatives have included training primary care physicians to provide family planning services, including contraceptives, in the social insurance benefit package, and providing initial capitalization for NGOs to promote or provide services. These systems are sometimes scaled up to benefit the entire sector, but initially they exist to sustain the core program.

The horizontal approach improves performance of elements that cut across all aspects of the health sector. These improvements benefit not only family planning, child survival, and public health, but all health sector programs. These can include health information systems, personnel systems, and broad based training systems.

The box at left names some health system strengthening projects, illustrating the many approaches that the Agency takes in making health systems work effectively and sustainably.

- **Regional Frameworks Address System Strengthening**

In FY97 some regional bureaus began to synthesize years of development assistance experience by drafting conceptual frameworks that reflected what was needed for sustainable change in the health care sector. The frameworks reflected differing regional environments as well as common challenges faced by health care systems in all regions.

The Africa Bureau developed a conceptual framework for measuring the sustainability of health and family planning. Sustainable systems, including financial sustainability, institutional capacity, and a favorable health policy environment, are prerequisites for countries to be able to assume responsibility for programs and health outcomes.

The framework developed by the Bureau for Europe and the New Independent States is organized around the goal of improving sustainability of health benefits and services. It incorporates elements of the macroeconomic restructuring and democratization agenda for the region, showing that these are tightly linked to health sector performance.

The Bureau for Latin America and the Caribbean collaborated with the Pan American Health Organization (PAHO) to develop a framework for health care reform leading to equitable access to basic health care on a sustainable basis. The bureau developed a methodology to assess progress in health systems development and reform, and selected indicators to monitor local capacity-building and progress.

Results of USAID's System Strengthening Activities

For more than 15 years, USAID has pursued long-term strategies that would result in the transfer of leadership for achieving program goals from donors to indigenous public and private organizations. Training, technical assistance, and grants concentrated on developing institutions, technical operating procedures, and professional skills to sustain a functional health care system without day-to-day guidance from donor-funded outside advisers. During 1997, Agency evaluations of projects and results reported by USAID Missions demonstrated that progress is being made. The new systems USAID introduced are becoming ingrained in the local health care culture, making gains less likely to be reversed and ensuring prospects for continuous progress.

Many of the 1997 evaluations reported on below were done in the states of the former Soviet bloc, but this was more an accident of the project cycle than a reflection of differing approaches in different parts of the world. While the bulk of the next section looks at Europe and the new independent states, several examples of system strengthening from other parts of the world round out the discussion.

In the New Independent States: Sustainable Changes Through Categorical and Horizontal System Strengthening

Background: When communism collapsed in 1991, the economic crisis in the new independent states hurt the health sector. The health care budget dropped from already low levels. The maldistribution of resources worsened to the point that inpatient care consumed 70 percent of the health care budget. Commodity supply lines broke down and epidemics threatened to overwhelm thinly stretched health care systems. The system was also burdened by an oversupply of specialty physicians and hospital beds, a medical profession with outdated clinical skills, and an undereducated nursing corps with low professional standing. Alarming consequences were feared since life expectancy of adult males had been declining for 20 years and was already 10 years below Western levels.

U.S. hospitals were charged with introducing Western methodologies and modern technology to address the leading causes of death and disability.

As the centralized Soviet system deteriorated, health officials in Central Asia and **Ukraine** suddenly found themselves responsible for national health care policy, financing and delivery, all of which the Soviet government had previously handled. In **Russia** itself, the devolution of responsibility and financing for health severely tested local officials, who had no experience with facility budgeting, management, information-based decision-making, or competitive procurement.

Under the NIS Health Care Improvement project, USAID launched both categorical and cross-cutting systems-strengthening initiatives to support the transition.

Categorical Programs as the Entry Point for System Strengthening

1. The Hospital Partnerships project linked hospitals in the United States with counterparts in the new independent states. American partners were charged with introducing Western methodologies and modern technology to address the leading causes of death and disability in the region. The effort improved human and institutional capabilities and bettered clinical care management.

In 1992, at the inception of the project, U.S. partners found a significant lack of basic knowledge and an almost complete absence of a true scientific, evidence-based approach to health and medical decision-making because health care professionals in eastern Europe and the new independent states had operated in isolation from modern research advances in medicine and management.[44]

Through clinical exchanges with American partners and training in the use and benefits of information technology, physicians in the region began modernizing medical practice.[45] An introduction to information technology, for instance, brought a new way of thinking. Physicians learned how to access updated medical research from the Internet, journals, medical libraries, and evidence-based medical sources,

such as the Cochrane Collection. Now, at partner hospitals, 5,400 health care providers can search these sources. Information coordinators respond to 900 requests and train 400 colleagues every month.[46] Partners are also using Internet and videoconferencing technology 1) to conduct medical consultations on difficult cases, 2) for telemedicine and distance learning, and 3) to enhance partnership communication. Western medicine is rapidly being fully integrated into the medical practice of the new independent states.

Because nurses fill such a vital role in Western medicine, their underutilization in NIS institutions was a barrier to modernizing clinical care. The American International Health Alliance assembled a task force to facilitate a coordinated approach to strengthening the nurses' clinical, educational, and managerial capacities. Professional associations were formed in **Georgia, Kyrgyzstan, Russia,** and **Ukraine.** The task force developed an appeal for nursing reform and revamped education curricula. Nurses assumed leadership roles in hospitals and local and regional health administrations. As of 1997, the momentum of these results was increasing. The Council of NIS Ministers of Health cited the importance of improved nursing as a central source of improved productivity in the health care systems.[47]

2. Fighting a diphtheria epidemic. Characterized by WHO as the "biggest public health threat in Europe since World War II," a totally unexpected diphtheria epidemic triggered the USAID infectious disease program in **Russia** in 1992.[48] Teams deployed to the new independent states to deliver vaccines and syringes on an emergency basis quickly realized the epidemic could overwhelm the public health care system, which was at the point of collapse. USAID's leadership attracted the attention of other donors, and together they gradually broadened their initial focus from targeting a specific disease to strengthening local capacity to manage the full spectrum of infectious diseases in an effective and sustainable way.

In the Lessons Learned section of the evaluation report, the team wrote, "The most important contributions that USAID interventions have made to public health in the NIS are improvements in program management."[49] Evaluators cited USAID's contributions in numerous areas, such as computerization of information, creating local capacities for policy review, disease surveillance, and management of vaccine stocks. The Agency also assisted in establishing management systems to monitor vaccine coverage; new methods of information, education, and communications for consumers; product registration; systematic procurement methods; training and supervision of front-line workers; and vaccine quality control. The evaluators concluded that in addition to financial savings and uninterrupted immunization, public health programs will be able to sustain themselves.[50]

These findings echo more than 10 years of experience with immunization programs to improve child survival where managers found that vaccine delivery would not solve the long-term problems. Initiatives had to include capacity-building on a more comprehensive scale to have a lasting impact.

Horizontal Strategies for System Strengthening

Health Care Financing and Service Delivery Reform Project (*Zdrav*Reform). *Zdrav*Reform was designed to bolster consumer confidence in the political and economic reform agenda by improving the health care system and providing a market-oriented alternative to the Soviet model.

To give reforms a human face, community-based care became a priority. Components of the health care system in pilot sites were restructured using different strategies as appropriate for differing local conditions. The goal for all was better quality and more efficient patient care, with improved patient and provider satisfaction.

By 1997 the results were dramatic. In pilot sites, 180 family group practices were established. For the first time, patients had a choice of physicians. Insurance systems were created, and physicians were retrained in modern primary care. At some sites physicians were given special instruction about family planning and early diagnosis and treatment of infectious disease. They were also offered the opportunity to practice in refurbished facilities and to sign contracts, increasing their pay in return for higher performance. Accounting systems were established and people were trained in facility management.

Giving high visibility to the new consumer-oriented services were advertisements and slogans touting the availability of family planning at the family group practice and the time-saving benefits of one-stop shopping. Patients and providers expressed high satisfaction. New, higher standards have taken over. Most important, health system managers now have the necessary tools and techniques for solving their own problems, and they can rely on systems that will continue to evolve with experience.[51] The techniques tested at *Zdrav*Reform pilot sites proved so effective that they quickly attracted $85 million in additional capital from the World Bank for expanded implementation.

Sustainable Improvements Through Horizontal Approaches to System Strengthening

- **The Health Markets Project in Central and Eastern Europe**

1. Creating a profession of health care managers. At a 1994 conference on health reform, health care leaders across central and eastern Europe concluded that the greatest obstacle to market-oriented reform was the lack of trained managers. USAID then initiated health management education partnerships in four countries, creating degree programs in health care management that did not exist in the region at the time. Within three years, three of the programs were thriving (**Albania** is the exception) and health care management has emerged as a new profession.

The government of the **Czech Republic** awarded a grant to local partners to develop uniform standards and curriculum requirements for the nation. The **Slovak** Ministry of Education asked its partners to develop accreditation standards to ensure quality of health management education in that country. The **Romanian** Ministry of Health hired Romanian partners to train district

health managers, who were given new responsibilities to implement decentralized programs in the 40 districts in the country.[52]

2. Health sector reform in the Czech Republic. Capitalizing on changes in the political and economic environment, the **Czech Republic** was in the forefront of market-oriented health sector reform in central and eastern Europe. USAID tailored its program to provide technical assistance that would enhance specifically Czech approaches. The Agency initiated extensive policy dialog and training in managed care, insurance management and regulation, policy analysis, and provider payment systems. USAID also addressed actuarial science, decision support systems, facility accreditation, and management education. It conducted demonstrations of hospital financial management, flexible nursing staffing, quality improvement systems, and secondary prevention of heart disease. Several of the models introduced are being implemented nationwide. The Czech Republic passed landmark legislation authorizing creation of a nonprofit sector. This benefits not only health care institutions interested in private, not-for-profit standing, but all socially oriented institutions.

Before USAID closed its office in the Czech Republic in 1997, an assessment team concluded that in just five years, Agency activities had had a favorable and substantial impact on the Czech health care sector—far in excess of USAID's modest investment.[53] Part of the reasons for this is that USAID's assistance was structured around the Czech Republic's own strategies. While there are many other factors affecting health, not least the strength of the Czech economy, one outcome of donor assistance is that since 1991, the Czechs are the only people in the former Soviet bloc to show improvements in life expectancy.

- **Family Planning in Turkey: New Support Makes a Categorical Program Sustainable**

In 1975, USAID closed its Mission in **Turkey** but continued to support population and family planning activities there. As part of its plan to phase out the program by 1999, USAID developed a project with two objectives: 1) to increase the use of modern contraceptives and 2) to increase the program's self-reliance.

A 1997 evaluation found that USAID achieved these objectives by bringing private, public, and nongovernmental sectors together to create a self-sustaining program in family planning and reproductive health. As of 1997, the Ministry of Health had a unit responsible for family planning services and was working to incorporate these services in dispensaries, health centers, and hospitals. Family planning became a covered benefit under the Social Security Institution, which at that time covered some 40 percent of Turkey's 22 million people. The ministry lobbied for contraceptive funding and for the first time took financial responsibility for procuring condoms and pills. Private sector control of the oral contraceptive and condom markets grew to 75 percent, and the private sector launched a nationwide campaign to promote two new injectable contraceptives and an intrauterine device. A network of 20 large NGOs was established that functions as an advocacy group for women's education, health, and rights.

All major interventions, especially any new ones, should build in sustainability strategies from the outset.

The evaluation team concluded that for these activities to have a national impact, greater interaction and more integration of program elements were needed. It recommended that "all major interventions, especially any new ones, should build in sustainability strategies from the outset."[54]

- **The Philippines Health Finance Development Project: A Horizontal Approach**

The **Philippines** Health Finance Development project coincided with decentralization of government authority to local governing units, prompting a reshaping of the entire public health care system. The Department of Health shifted from serving as principal health service provider to health care system planner and regulator. Local governments assumed responsibility for designing and implementing initiatives to meet the needs of their constituents.

USAID collaborated with the Philippines on three strategies: 1) creating a research-based, interactive, transparent process for health policy formulation and decision-making, 2) creating a local community of knowledgeable and experienced experts on health care issues, and 3) creating a multisectoral forum where policy issues can be debated and reforms initiated.

Acknowledging that the Philippines still faces many challenges in health care reform, a 1997 evaluation concluded that the three strategies were successful. As a result of this project, there is now a forum where the public and private sector can debate policy issues, and the Department of Health maintains a system for doing research to support policy decisions. This department has also developed and implemented health insurance initiatives, and the Health Ministry has been able to take on other functions with its own human and financial resources. The transformation of the Philippine system is an excellent example of how health care strengthening projects can achieve innovative and sustainable change.[55]

- **Jamaica's Urban Environment Program: A Sustainable Categorical Program**

An NGO that upgraded sanitary facilities and reduced the amount of untreated wastewater flowing or seeping into **Jamaica's** Montego Bay can continue to provide sanitation services in the area after USAID funding ends because it established a new, well-managed, fully self-financing institution. This model is being replicated in other communities in Jamaica.[56]

- **In Mozambique: A Timely Horizontal Approach**

Though an extremely low-income country, **Mozambique** had remarkable economic growth during the past five years, thanks to economic and political liberalization and the end of a long civil war. Along with a push to rapidly increase access to basic health services, the Ministry of Health, with multi-donor support, undertook a variety of approaches to improve the performance

of the entire health sector. With the assistance of the USAID-supported Primary Health Care project, Mozambique has improved financial sustainability of the health care sector as a whole. Measures include introduction of rational pharmaceutical management procedures supported by a national drug formulary and a new drug information system, and enhanced technical and management training of Health Ministry clinicians. The ministry developed and is testing user fee guidelines with the goal of reaching financial sustainability of the health care system. To accelerate progress, the ministry asked USAID in 1997 to take the lead among donors in formulating a national health sector financing strategy.[57]

Lessons Learned in Health System Development and Strengthening

USAID's emphasis on achieving sustainable development in the countries it assists is driven by a desire to enable countries to stand on their own without continuing inputs of funds from outside. Transferring decision-making and responsibility to local institutions is an important dimension of this. As USAID has worked toward this goal—achieving it in many countries—the Agency has learned many lessons. Probably the most profound is that to achieve sustainable, continuous improvement in a people's health, both public health problems themselves and health care systems issues must be addressed. Many other lessons flow from this:

- Health sector improvements are likely to be sustainable when the direction of change is aligned with the country's political and economic priorities.
- Health system strengthening requires host country commitment to human and institutional capacity building. This can be demonstrated by progressively increasing levels of local funds for this purpose.
- System strengthening can begin with any component but ultimately may require that other aspects of the system be improved if the changes are to be sustainable.
- Tangible benefits from changes that have been made build confidence—both inside the country and abroad—that a country is on the right path in strengthening its health system. Most important, visible benefits motivate people to continue with the needed reforms.
- Concerns about the sustainability of health sector changes become most acute as USAID begins to plan its exit strategy. However, attention to sustainability is necessary throughout the development process, beginning at the very outset.
- Activities that result in the establishment of new routines in daily operations are less likely to be abandoned or reversed.

V. CONCLUSION

Population, health, and nutrition will continue to receive a large share of USAID's development budget, because stabilizing population growth and improving health are essential to achieving economic growth and addressing the humanitarian concerns of the U.S. government. The downward trends in total fertility and under-5 mortality rates show that improved health is becoming a reality in many of the developing countries where USAID works.

USAID programs are also contributing to progress in reducing the number of undernourished children, improving maternal health, preventing HIV/AIDS, and reducing the incidence of infectious diseases. The data to measure these gains uniformly in all USAID-assisted countries are improving but are not yet sufficiently available or reliable for Agency-level reporting. Nonetheless, reports from the individual country programs demonstrate that progress is being made.

Health care systems are also being successfully strengthened by USAID programs. As has been shown above, this form of assistance serves to underpin core PHN programs addressing specific health and population issues. It also improves the functioning of the entire health sector in the country. Creating local self-sufficiency ensures that gains made through the Agency's assistance will be sustained after donors depart.

The combination of these two types of initiatives brings both depth and breadth to USAID's ability to address countries' needs. Together, they contribute to sustainable changes in people's health, which is the linchpin to achieving many of the Agency's other development goals. Together with broad-based research in developing technology and approaches, these ensure that USAID will continue to be the population, health, and nutrition pacesetter among the international donor community.